

# Apparatus and method for transferring information or data in a wireless manner from point to point along the route of an inductively powered pathway

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## Abstract of **NZ501864**

For an inductively powered installation, a radio communications channel is provided along a trackway (101, 102) within an extended space (105); physically closely linked to the primary conductors (102) yet electrically quite distinct from the current carried in the conductors typically powered at 10 kHz. Communication, and control, is thus facilitated between vehicles (202x) or fixed devices (201, 1304) along an inductively powered trackway, but does not constrain or adversely affect the provision of power in the track. The space is bounded in part by an electromagnetically somewhat lossy supporting beam (102) (usually made of a metal or of concrete optionally containing metal or ferromagnetic material). The contained RF energy is carried between loop aerials (104) within the extended space for a substantial distance along the trackway, including around bends (1301), with relatively little leakage to the side - hence with little interference to other tracks. Frequencies of from 100 MHz to 1 GHz, at low power levels such as from 1 milliwatt to 10 watts are suitable

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